



## Microbicide Products in Development by Primary Mechanism of Action (May 2003)

Category	Products	Sponsor/Investigator
Acid Buffers (2)	<ul style="list-style-type: none"><li>• Acidform™</li><li>• BufferGel™</li></ul>	<ul style="list-style-type: none"><li>• Program for the Topical Prevention of Conception and Disease (TOPCAD), Global Microbicide Project (GMP)</li><li>• ReProtect LLC</li></ul>
Vaginal Defense Buffers (8)	<ul style="list-style-type: none"><li>• D2A21 (antimicrobial peptide)</li><li>• Defensins</li><li>• Lactobacillus crispatus suppository (CTV-05)</li><li>• Lactobacillus- expressing CD4 (MucoCept™)</li><li>• Hydrogen peroxide</li><li>• Lactin Vaginal Capsule</li><li>• Protegrins</li><li>• Retrocyclin (RC-100)</li></ul>	<ul style="list-style-type: none"><li>• Demegen Inc.</li><li>• Mt. Sinai Medical Center</li><li>• Osel, Inc., The Medicines Company, University of Pittsburgh/Magee Women's Hospital</li><li>• NIH/NIAID, Osel Inc.</li><li>• FemCap Inc.</li><li>• University of Pittsburgh/Magee Women's Hospital, The Medicines Company</li><li>• University of California at Los Angeles</li><li>• University of California at Los Angeles</li></ul>
Surfactants (9)	<ul style="list-style-type: none"><li>• Alkyl sulfates and related compounds (Sodium dodecyl sulfate, ammonium dodecyl sulfate, etc.)</li><li>• Benzalkonium chloride (BZK)</li><li>• C-31G (Savvy™)</li><li>• Chlorhexidine zinc gel (ZnG-Gel)</li><li>• N-halamine derivatives (polymeric biocides)</li><li>• OPT-388</li><li>• OTC Lubricants</li><li>• Synthetic milk lipids</li><li>• Z-14 (acyl-carnitine analogue)</li></ul>	<ul style="list-style-type: none"><li>• Pennsylvania State University College of Medicine, Renaissance Scientific</li><li>• Biofem Inc.</li><li>• Biosyn Inc.</li><li>• Viratech Pharmaceuticals Inc.</li><li>• Auburn University</li><li>• OPTIME Therapeutics, NYS Institute for Basic Research in Developmental Disabilities, Magee Women's Research Institute</li><li>• Biofilm Inc., University of Texas Medical Branch</li><li>• New York State Institute for Basic Research, University of Pittsburgh/Magee Women's Hospital, Pennsylvania State University College of Medicine</li><li>• Virginia Polytechnic Institute and State University</li></ul>
Adsorption Inhibitors (8)	<ul style="list-style-type: none"><li>• Carrageenan (Carraguard™)</li><li>• Cellulose sulfate (Ushercell™)</li><li>• Dextrin-2-sulfate (Emmelle™)</li><li>• Heparan sulfate (Cholic Acid)</li><li>• Naphthalene sulfonate polymer (PRO2000)</li><li>• Polyanionic GP120 Inhibitor</li><li>• Polystyrene sulfonate (PSS)</li><li>• Sulfonated hesperidin</li></ul>	<ul style="list-style-type: none"><li>• Population Council</li><li>• GMP, Organichem, Polydex Pharmaceuticals Ltd., TOPCAD</li><li>• Imperial College of Medicine, Medical Research Council of the United Kingdom, M-L Laboratories</li><li>• Cincinnati Children's Hospital Medical Center</li><li>• Indevus Pharmaceuticals Inc.</li><li>• University of Maryland Biotechnology Institute</li><li>• GMP, TOPCAD</li><li>• NIPER, Panjab University, TOPCAD</li></ul>
Entry and Fusion Inhibitors (21)	<ul style="list-style-type: none"><li>• AOP-Rantes</li><li>• Betacyclodextrin (CD)</li><li>• CCR5 inhibitors</li><li>• Chimeric protein with soluble CD4 (CD4-17b)</li><li>• CXCR4</li><li>• Cyanovirin-N</li><li>• Dimandelic Acid Ether (SAMMA)</li></ul>	<ul style="list-style-type: none"><li>• University of Maryland-Baltimore, Institute of Human Virology</li><li>• Johns Hopkins University School of Medicine</li><li>• Cornell University Weill Medical College</li><li>• NIH/NIAID</li><li>• Rega Institute</li><li>• Biosyn Inc.</li><li>• GMP, Mount Sinai Medical Center, TOPCAD</li></ul>

**Source:**

Alliance for Microbicide Development  
8484 Georgia Avenue, Suite 940, Silver Spring, MD 20910 USA  
Tel 301-587-9690, Fax 301-588-8390, Email info@microbicide.org  
www.microbicide.org

Entry and Fusion Inhibitors (cont.)	<ul style="list-style-type: none"> <li>• Human monoclonal antibodies (C2F5, C2G12, C4E10)</li> <li>• K5-N, OS(H)</li> <li>• Liposome-generated artificial membranes</li> <li>• Phthalocyanines (CuPcS, NiPcS, Pcs)</li> <li>• Plantibodies (HX8, HIV plantibodies, and plantibody hybrids)</li> <li>• Polybiguanides</li> <li>• Polymethylene hydroquinone sulfonate (PMHS)</li> <li>• Porphyrins</li> <li>• PSC-Rantes</li> <li>• Soluble DC-Sign</li> <li>• SPL7013 (Dendrimer-based Nanostructure)</li> <li>• T20</li> <li>• Thrombospondin (TSP1-derived Peptides)</li> <li>• Transgenic plant extracts containing recombinant Cyanovirin</li> </ul>	<ul style="list-style-type: none"> <li>• Polymun Scientific</li> <li>• San Raffaele Scientific Institute/Glycores 2000 s r l</li> <li>• University of Arizona</li> <li>• Emory University, Georgia State University</li> <li>• Epicyte Pharmaceutical Inc.</li> <li>• Pennsylvania State University College of Medicine, Novaflux Technologies, Inc.</li> <li>• GMP, NIPER, TOPCAD, Zandu Pharmaceutical Works</li> <li>• Emory University, Veterans' Administration Medical Center/Decatur</li> <li>• University of Geneva, Scripps Research Institute</li> <li>• Cornell University Weill Medical College</li> <li>• Starpharma Limited</li> <li>• Roche Pharmaceuticals, Trimeris</li> <li>• Cornell University Weill Medical College</li> <li>• Guy's Hospital, London/St. George's Hospital Medical School, London</li> </ul>
Replication Inhibitors (6)	<ul style="list-style-type: none"> <li>• (+)-Calanolide A, (-)-Calanolide B</li> <li>• DABO (MC1220)</li> <li>• Dapivirine™ (TMC-120)</li> <li>• Tenofovir (PMPA)</li> <li>• UC-781</li> <li>• WHI-05, 07</li> </ul>	<ul style="list-style-type: none"> <li>• SRI International, DeCODE Genetics, National Cancer Institute</li> <li>• Idenix Pharmaceuticals, University of Cagliari Sardegna-Italy</li> <li>• Institute of Tropical Medicine, Tibotec</li> <li>• Gilead Sciences</li> <li>• Biosyn Inc.</li> <li>• Parker Hughes Institute</li> </ul>
Multiple Mechanisms (7)	<ul style="list-style-type: none"> <li>• Antiviral proteins (GAP31, MAP30)</li> <li>• Cellulose acetate phthalate (CAP)</li> <li>• Doxovir</li> <li>• Monocaprin with PAVAS</li> <li>• Napthalene urea derivative</li> <li>• Thermoreversible Gel (Invisible Condom™)</li> <li>• Topical estrogens</li> </ul>	<ul style="list-style-type: none"> <li>• New York University School of Medicine</li> <li>• New York Blood Center, Dow Pharmaceuticals</li> <li>• Redox Pharmaceutical Corporation</li> <li>• University of Iceland, University of Leuven/Rega Institute</li> <li>• Mt. Sinai Medical Center</li> <li>• Laval University</li> <li>• Tulane University</li> </ul>
Uncharacterized Mechanisms (5)	<ul style="list-style-type: none"> <li>• Alatavir</li> <li>• Kolaviron</li> <li>• Pokeweed Antiviral Protein (PAP)</li> <li>• Praneem Polyherbal Vaginal Tablet</li> <li>• Tinosporin</li> </ul>	<ul style="list-style-type: none"> <li>• New York University</li> <li>• New York University</li> <li>• Parker Hughes Institute</li> <li>• Institute of Research in Reproduction</li> <li>• New York University</li> </ul>

**Source:**

Alliance for Microbicide Development  
 8484 Georgia Avenue, Suite 940, Silver Spring, MD 20910 USA  
 Tel 301-587-9690, Fax 301-588-8390, Email [info@microbicide.org](mailto:info@microbicide.org)  
[www.microbicide.org](http://www.microbicide.org)